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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,473	12/12/2003	Barbanti Giovanni	S2205-72130	2475

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EXAMINER

PREVIL, DANIEL

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/735,473

Applicant(s)

GIOVANNI, BARBANTI

Examiner

Daniel Previl

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This action is responsive to communication filed on July 25, 2006.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbanti Giovanni (EP 0 893 284 A1) in view of Tu et al. (2003/0136192).

Regarding claim 1, Barbanti discloses a system for transmitting a signal indicating the functioning condition of a tire (col. 7, lines 25-43) comprising: a device signaling an inflating condition of the tire in a first loading position when the tire pressure is higher than the pre-established value that indicates the tire is suitable for standard use (col. 10, lines 25-36); wherein the movable group is capable of detecting a second unloading position when the tire pressure is lower than a pre-established value that indicates the tire is not suitable for a standard use (col. 10, lines 36-41); a switch that activates an apparatus sending a warning signal picked up by a receiver when the movable group passes the first loading position to the second unloading position (col. 10, lines 25-56).

Barbanti discloses all the limitations above but fails to explicitly disclose the movable group consisting of at least a sensor, an amplifier, a transducer and an actuator.

However, Tu discloses the movable group consisting of at least a sensor (page 4, paragraph 0027, lines 21-24), an amplifier 31 (fig. 3; page 3, paragraph 0020, line 30), a transducer (loud speaker 24 in fig. 3, page 3, paragraph 0020, lines 6-7) and an actuator (activator) (page 3, paragraph 0020, lines 21-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Tu in Barbanti. Doing so would modify Barbanti's system with Tu's system in order to provide accurate information related to a low tire pressure thereby displaying a warning to the driver to ensure a safe driving wherein precluding regrettable accidents that can lead to property damaged and severe injury even death as taught by Tu (page 1, paragraph 0006).

Regarding claim 2, Barbanti and Tu disclose all the limitations in claim 1 and Tu further discloses the receiver is located aboard the vehicle (receiver 18 located in the vehicle by the driver compartment in page 2, paragraph 0017). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Tu's receiver in Barbanti. Doing so would modify Barbanti's system with Tu's receiver in order to provide accurate information related to tire defects thereby displaying a warning to the driver to ensure a safe driving wherein precluding regrettable accidents that can lead to property damaged and severe injury even death as taught by Tu (page 1, paragraph 0006).

Regarding claims 3-4, Barbanti and Tu disclose all the limitations in claim 1 and Tu further discloses a first member for feeding energy for sending a warning

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signal (page 2, paragraph 0017, lines 10-18). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Tu's energy for sending a warning signal in Barbanti. Doing so would modify Barbanti's system with Tu's feeding energy for sending a warning signal in order to provide full power that permit the warning signal to transmit efficiently instructions to the driver to ensure a safe driving wherein precluding regrettable accidents that can lead to property damaged and severe injury even death as taught by Tu (page 2, paragraph 0017).

Regarding claim 5, Barbanti and Tu disclose all the limitations in claim 1 and Tu further discloses a signal indicating the charge condition of the electric generators (page 2, paragraph 0017, lines 10-17). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Tu's electric generators in Barbanti. Doing so would modify Barbanti's system with Tu's electric generators in order to provide full power that permit the warning signal to transmit efficiently instructions to the driver to ensure a safe driving wherein precluding regrettable accidents that can lead to property damaged and severe injury even death as taught by Tu (page 1, paragraph 0006).

Regarding claim 6, Barbanti discloses a pre-established time periods, of signals indicating the own proper functioning condition (col. 8, lines 39-58; col. 10, lines 58-59; col. 11, lines 1-6).

Regarding claim 7, Barbanti discloses the transmission of the signal of the proper functioning condition of the apparatus at pre-established time periods is not enabled when the group commutes the switch (col. 8, lines 35-58; col. 12, lines 37-57).

3. Claims 8-11, 13-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbanti in view of Tu and further in view of Mendez et al. (US 5,612,671).

Regarding claims 8-11, Barbanti and Tu disclose all the limitations in claim 1 but fail to explicitly disclose every single apparatus uses an own identifying code.

However, Mendez discloses every single apparatus uses an own identifying code (col. 2, lines 35-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Mendez's identifying code in Barbanti and Tu. Doing so would modify Barbanti's and Tu's system with Mendez's identifying code in order to detect the abnormal conditions of a tire and transmit accurate information related the tire to the driver to ensure a safe driving wherein precluding regrettable accidents that can lead to property damaged and severe injury even death as taught by Mendez (col. 1, lines 6-50).

Regarding claims 13-14, Barbanti discloses winding linked to a magnetic field (transmitted by induction) (col. 10, lines 42-57; fig. 1)

Regarding claim 15, Barbanti discloses bi-directional transmitting system capable of limiting the feeding of energy just when the vehicle is running (col. 5, lines 18-57; col. 10, lines 25-57).

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barbanti Giovanni in view of Tu and further in view of Tsujita (US 6,604,416).

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Regarding claim 12, Barbanti and Tu disclose all the limitations in claim 1 but fail to explicitly disclose pre-established time periods when the vehicle is stationary to save energy.

However, Tsujita discloses pre-established time periods when the vehicle is stationary to save energy (col. 6, lines 27-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Tsujita's vehicle stationary in Barbanti and Tu. Doing so would modify Barbanti and Tu's system with Tsujita's vehicle stationary by turning on and off the battery in order to save energy when the engine is stopped thereby enabling the driver to monitor accurately the conditions of the tires for the safety purposes as taught by Tsujita (col. 1, lines 11-37).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin (US 6,501,372) discloses tire condition sensor communication with unique sampling on vehicle-side diversity antenna array.

Dufournier et al. (US 6,397,670) discloses device for detecting vibrating signal caused by tire engaging safety insert after pressure loss in time.

Gee et al. (US 4,311,985) discloses tire pressure monitor and deenergization circuit therefore.

Koch et al. (US 5,562,787) discloses method of monitoring conditions of vehicle tires.

Lowe et al. (US 5,541,574) discloses transponder system for communicating with a vehicle tire.

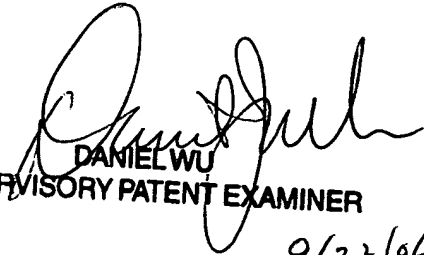
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is (571) 272-2971. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel WU can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Previl  
Examiner  
Art Unit 2636

DP  
September 20, 2006.

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER  
9/22/06